

REMARKS

Reexamination and reconsideration of the application as amended are requested. Support for adding new claim 21 is found in claim 1 and figures 2 and 3, wherein new claim 21 is the same as claim 1 with the added limitations that the flow-rate transducer 20 is the only flow-rate transducer of the second flow path 12 and that the first flow path 10 is devoid of a flow-rate transducer.

The examiner's rejection of claims 1, 2, 4, 6, 10-12, 14, 16 and 20 as being "obvious", under 35 U.S.C. 103, is respectfully traversed. The examiner rejects these claims as being unpatentable over Fond '683 in view of Cosentino '341. Claims 2, 4, 6 and 10 depend from claim 1, and claims 12, 14, 16 and 20 depend from claim 11.

The Examiner correctly states that Fond discloses a first flow path from a dialysis fluid source to the dialysate side of a kidney dialysis machine (which is understood by applicants to be flow path ABC in figure 1) and discloses a second flow path away from the machine (which is understood by applicants to be flow path DEF in figure 1). The Examiner correctly states that Fond also discloses a bypass interconnection path (which is understood by applicants to be flow path ABEF in figure 1). The Examiner correctly states that Fond further discloses using the interconnection path to calibrate flowmeters 7 and 8 (which is understood by applicants to follow from the flow rate through flowmeter 7 being the same [matched] as the flow rate through flowmeter 8 when the bypass interconnection path is used). The Examiner correctly states that Fond additionally discloses disconnecting the bypass interconnection path.

However, Fond does not teach, suggest or describe controlling the flow rate of the first fluid flow to match the flow rate of the second fluid flow when the first and second flow paths are disconnected as required by applicants' claims 1 and 11. Fond does his pump control through device 11 when the first and second flow paths ABC and DEF are connected. Also, Fond uses the readings of the two flow meters 7 and 8 to control pumps 12 and 13 (and does not use readings from a flow-rate transducer for various values of pump speed as required by applicants' claims 1 and 11).

The Examiner alleges that Consentino teaches controlling a flow rate in a first flow path to match the flow rate in second flow path utilizing data obtained from both the transducer readings during connection of the bypass path and transducer reading following reconnection of the second fluid source and that it would have been obvious to have modified Fond by providing the flow rate matching of Consentino to stabilize the ultrafiltration or dialysis rate of the blood being purified. Applicants respectfully disagree.

Consentino states that pumps 20 and 28 are linked as at 30 such as by a mechanical linkage (and not by readings from a flow-rate transducer for various values of pump speed as required by applicants' claims 1 and 11) to maintain their volume flow substantially equal (see column 2, lines 57-61). Also, Consentino does not teach, suggest or describe controlling the flow rate of the first fluid flow to match the flow rate of the second fluid flow when the first and second flow paths are disconnected as required by applicants' claim 1 and 11. Consentino does his maintaining of equal volume flow when the flow path containing pump 20 is connected to the flow path containing pump 28. Modifying Fond by providing the flow rate matching of Consentino (through undescribed device 11 of Consentino) would still result in flow rate matching when the first and second flow paths are connected while applicants' claims 1 and 11 require flow rate matching with the first and second flow paths disconnected.

In regard to claims 10 and 20 which require the first flow path 10 to be a water replacement flow path of a kidney dialysis machine and the second flow path 12 to be a waste water flow path of the kidney dialysis machine, neither Fond nor Consentino teach, discuss or describe a water replacement flow path. Fond is concerned with controlling flows to and from the haemodialyser 3. Although Fond does disclose extraction pump 17 which extracts from the circuit 1 a quantity of dialysis liquid equal to the quantity of ultrafiltrate to be withdrawn from the blood (see column 8, lines 1-6), Fond does not disclose a second flow path which is the extracted waste water from the blood of the patient and a first flow path which is replacement water for the patient. Consentino likewise is concerned with controlling flows to and from the dialyzer 10. Although Consentino does disclose a flow meter 31 leading to a receptacle 32 to measure the amount of water removed by ultrafiltration from the blood of the patient, the ultrafiltrate volume measured is not the ultrafiltrate but an amount of dialysate and ultrafiltrate

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equal to the amount of ultrafiltrate (see column 4, lines 8-20), and Consentino does not disclose a second flow path which is the extracted waste water from the blood of the patient and a first flow path which is replacement water for the patient.

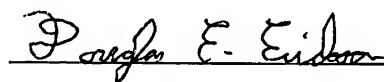
The examiner's rejection of claims 3, 7, 13 and 17 as being "obvious", under 35 U.S.C. 103, is respectfully traversed. The examiner rejects these claims as being unpatentable over Fond '683 in view of Cosentino '341 and further in view of Lichtenstein '983. Claims 3 and 7 depend from claim 1, and claims 13 and 17 depend from claim 11. Applicants' previous remarks concerning the patentability of claims 1 and 11 over Fond in view of Cosentino are herein incorporated by reference.

The examiner's rejection of claims 5 and 15 as being "obvious", under 35 U.S.C. 103, is respectfully traversed. The examiner rejects these claims as being unpatentable over Fond '683 in view of Cosentino '341 and further in view of Kolberg '644. Claim 5 depends from claim 1, and claim 15 depends from claim 11. Applicants' previous remarks concerning the patentability of claims 1 and 11 over Fond in view of Cosentino are herein incorporated by reference.

The examiner's rejection of claims 8, 9, 18 and 9 as being "obvious", under 35 U.S.C. 103, is respectfully traversed. The examiner rejects these claims as being unpatentable over Fond '683 in view of Cosentino '341 and Kolberg '644 and further in view of Lichtenstein '983. Claims 8 and 9 depend from claim 1, and claims 18 and 19 depend from claim 11. Applicants' previous remarks concerning the patentability of claims 1 and 11 over Fond in view of Cosentino are herein incorporated by reference.

Inasmuch as each of the rejections has been answered by the above remarks and amended claims, it is respectfully requested that the rejections and objections be withdrawn, and that this application be passed to issue.

Respectfully submitted,



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